



User's Manual

IP Telephony Gateway

Model No.: SP5008A, SP5018A, SP5058A

Website: http://www.micronet.info

About this User's Manual

This User's Manual gives users basic steps on installation and operation. Please read this manual chapter by chapter.

Chapter 1. Introduction

Introduce the IP Telephony Gateway to users in terms of feature, appearance, and application.

Chapter 2. Startup

Help user complete basic configuration.

Chapter 4. Web Administration

Provide command reference of Web Interface for advanced setting.

Chapter 3. Operation

Show user how to use the device to process phone call.

Chapter 6. Specification

List the specification of the gateway in detail.

Online Upgrade

Please refer to http://www.micronet.info/ for additional support.

Table of Content

1.	Intr	oduct	ion	. 4
	1.1	Key F	Features	. 4
	1.2	Phys	ical Description	. 5
2.	Sta	rtup		. 7
	2.1	Logir	into the System	. 7
	2.2	Netw	ork Configuration	. 9
		2.2.1	Static IP	.11
	2	2.2.2	DHCP	12
	2	2.2.3	PPPoE	13
	2	2.2.4	LAN Setting	14
	2.3	Gene	eral configuration	16
		2.3.1	PABX Mode (SP5018A only)	16
		2.3.2	SIP Setting	18
3.	Wel	b Adm	ninistration	20
	3.1	Gene	eral configuration	20
	3	3.1.1	SIP Advanced Setting	20
	3	3.1.2	Payload Type Setting	22
	3	3.1.3	Line Setting	24
	3	3.1.4	Qos Setting	27
	3	3.1.5	Speed Dial Setting	28
	3	3.1.6	Caller ID Setting	30
	3	3.1.7	CDR Setting	32
	3	3.1.8	Syslog Setting	34
	3.2	Adva	nced Configuration	36
	3	3.2.1	System setting	36
	3	3.2.2	SNTP Setting	40
	3	3.2.3	Codec Setting	41
	3	3.2.4	Voice Setting	42
	3	3.2.5	Tone Setting	44
	3	3.2.6	Phone Setting	46
	3	3.2.7	Digit Manipulation	48
	3	3.2.8	Dial Plan	50
	3.3	Mana	agement	52
	3	3.3.1	Provision Server	52
	3	3.3.2	Save-Reload setting	53
	3	3.3.3	Upgrade Firmware	54

	3	3.3.4	Reset to Default	58
	3	3.3.5	Network Status	59
	3	3.3.6	Version Info	60
	3	3.3.7	Port Status	61
	3	3.3.8	Password	62
	3.4	Rebo	poting the system	63
4.	Ope	eratio	n	64
	4.1	Peer	to Peer mode (FXO to FXS)	64
	4.2	Peer	to Peer mode (FXS to FXS)	68
5.	Spe	cifica	ition	72

1. Introduction

Micronet SP5008A / SP5018A / SP5058A are high-capacity SIP Gateway Series that provides 8 FXS / 4 FXS + 4 FXO / 8 FXO ports, and suit to build an IP-based communication platform with other VoIP devices. They meet enterprise's requirement for functionality (VoIP) upgrade and larger scale implementation by interoperating with legacy PABX and IP PBX/Soft-switch.

To connect with legacy PABX, SP5018A supports PABX Mode for PSTN backup. When network or power fails, PSTN lines (FXO) bypass to FXS ports and users still can make/receive calls via PSTN lines.

In addition, SP5008A includes some wonderful PABX features for small business. They help operate users on various VoIP applications, such as extension calling among 8 FXS ports, inbound/outbound calls via SIP trunk, DID (direct line), DOD, prefix routing, operator attendant, etc. Users can easily benefit from the ease-to-use device.

1.1 Key Features

- IETF SIP standards compliant
- Support 1 RJ-45 WAN port and 4 RJ-45 LAN ports
- Support POTS interfaces: 8 FXS / 4 FXS + 4 FXO / 8 FXO ports
- Support single-account registration on FXS ports for representative number
- Support extension calling among FXS ports
- Support rich call features: call hold, call transfer, call forward, hotline, warm line, speed dial, anonymous call, P2P call, etc
- Support PSTN prefix routing (SP5018A only)
- Support PABX mode for legacy PABX function upgrade (SP5018A only)
- Support PSTN lifeline PSTN bypass in case of power or registration failure (SP5018A only)
- Support detection of disconnect tone, polarity reversal, and loop current drop (zero voltage) on FXO ports
- Well interoperability with industry-leading IP-PBX/Soft-Switch, such as Alcatel, Lucent, Siemens, etc.

1.2 Physical Description

SP5008A:



SP5008A Front Panel

SP5058A



SP5058A Front Panel

SP5018A



SP5018A Front Panel

LED Indicators

LED	Status	Description
POWER	On / Green	The Power is on
READY	Blink / Green	Booting up for self test
PROXY	Blink / Green	Gateway reg. fails
	Constant / Green	Gateway reg. successes
WAN	Blink / Green	Transmitting or receiving data /Network connection established
LAN(1-4)	Blink / Green	Transmitting or receiving data /Network connection established
T(1*)	On / Orange	Busy / Off-hook
	Off	Available / On-hook
L(1*)	On / Orange	Busy
	Off	Available

1*. SP5008A: FXS = T1 - T8 SP5018A: FXS = T1 - T4, FXO = L1 - L4 SP5058A: FXO = L1 - L8

SP5008A

Reset	T 8	Τ7	Τ6	T 5	Τ4	T 3	Τ2	T 1		LAN 4	LAN 3	LAN 2	LAN 1	WAN	⊖€® DC 12V
							SF	P5008/	A Re	ear Pa	nel				
SP50)58A														
Reset	L8	L7	L 6	L 5	L 4	L 3	L 2	L1		LAN 4	LAN 3	LAN 2	LAN 1	WAN	⊖ € ⊕ DC 12V
							SF	P5058/	A Re	ear Pa	nel				
SP50)18A														
Reset	T4	P 4	тз	P 3	T 2	P 2	T1	P1		LAN 4	LAN 3	LAN 2	LAN 1	WAN	⊖ € ⊕ DC 12V
							SF	P5018/	A Re	ear Pa	nel				

RESET	Factory default button. Press and hold for 5 seconds to reset
T1-T8	The RJ-11 FXS port 1-8, connects analog phone sets, trunk line in PABX.
L1-L8	The RJ-11 FXO port 1-8, connect to PSTN
T1/P1-T4/P4	It is a pair of FXO and FXS connector. The different is that the when power off
	or application is crashed, the FXO and FXS will be connected together
	automatically for local surviving.
WAN	RJ-45 port of 10/100M for connecting to modem
LAN(1-4)	RJ-45 port of 10/100M for connecting to PC or hub/switch that connects PCs
DC 12V	The power socket, input AC 100V~120V; output DC12V.3A

2. Startup

2.1 Login into the System

First of all, connect your computer to MICRONET SP5008A / SP5018A / SP5058A's LAN port by using DHCP. The IP address assign to your computer should be 192.168.123.x by default. Once you can get the IP address from MICRONET SP5008A / SP5018A / SP5058A, you can start the configuration as below.

- **Step 1.** Connect LAN port to your managing PC. Or, connect the gateway with PC by hub/switch.
- Step 2. Launch your web browser with <u>http://192.168.123.123/</u>. Please configure IP address of PC with 192.168.123.x. Or set up your PC in DHCP mode to get IP address automatically.
- **Step 3.** The Password screen now appears. Type "*root*" in the user name field, and your password (none by default) in the password field.



Step 4. You will enter the main page of the web configuration interface after you keyed in the username and password correctly (see figure below).

VoIP Gateway

Network Configuration
 General Configuration

Advanced Configuration

Management Reboot

VoIP Mulitport Gateway Model : FXS-08

Primary function groups are listed on the left frame. For sub-groups please click each page on the right frame.

2.2 Network Configuration

By default, the gateway is in NAT mode (router mode) and can share Internet access with PCs. Go to [*Network Configuration / WAN Setting*], and configure WAN setting according to actual condition. In default IP type of <u>DHCP client</u>, it requests necessary IP information from your ISP automatically.

Note:

- 1. Different ISPs require different methods of connecting to the Internet. Please consult your ISP to select right IP type (Fixed IP, PPPoE) of WAN.
- 2. You can retrieve the IP address of the WAN port by keying #126# on the phone set that is connected to the FXS port of the gateway. You will hear an IVR announcing the current IP address of the WAN port.

twork Configuration		
WAN Setting	WAN Setting	
AN Setting	Connection mode	Static IP 🔽
	Current IP address	Static IP 29 DHCP 29
ral Configuration	DNS Server mode	PPPoE Manual
nced Configuration	Primary DNS address	61.220.126.2
igement	Secondary DNS address	168.95.1.1
ot	WAN Link Speed	Auto 🔽
	HTTP port for WEB management (80,1024~65535)	80
	Remote access restriction	● Enable ○ Disable
	Static IP	
	IP address	10.1.1.3
	Subnet mask	255.255.0.0
	Default gateway	10.1.1.254

WAN Setting

Item	Description	Static IP	DHCP	PPPoE
Connected mode	Select the connection method for			
	the WAN port of the			
	SP5008A/SP5018A/SP5058A, you			
	can choose the following:	V	v	v
	Static IP			
	• DHCP			
	• PPPoE			
Current IP Address	Show current IP address	V	V	V
DNS server mode	Select the DNS behavior, you can			
	choose the following:			
	Auto			
	Manual			
	"DNS auto" will retrieve the DNS	v	V	v
	information sent from the DHCP	v	V	V
	server.			
	"Manual" will look at the specified			
	Primary and Secondary DNS			
	address.			
Primary DNS	Specify the address of the Primary	v	v	v
address	DNS.	V	v	v
Secondary DNS	Specify the address of the	v	v	v
address	Secondary DNS.	V	v	v
WAN Link Speed	Select the connection speed for the			
	WAN port of the			
	SP5008A/SP5018A/SP5058A, you			
	can choose the following:	V	V	v
	Auto			
	• 100M			
	● 10M			
HTTP port for WEB	Specify the port number for WEB			
management	management, the allowable range is	V	V	v
	80,1024~65535.			
IP address	Specify the IP address.	V		
Subnet mask	Specify the subnet mask.	V		

Item	Description	Static IP	DHCP	PPPoE
Default gateway	Specify the IP address of the default	v		
	gateway.	V		
Remote access	Restricts/Blocks users connecting to			
restriction	the WAN port's IP remotely, you can	V	V	v
	Enable/Disable this option.			
PPPoE userID	Specify the username of the PPPoE			v
	account			v
PPPoE password	Specify the password associated to			v
	the PPPoE account above.			v
Reboot after remote	When the remote host (PPPoE)			
host disconnection	fails, the gateway will retry 3 times			
	to reconnect, if there is no reply			v
	from the remote host within 3 tries,			v
	then the gateway will reboot. You			
	can Enable/Disable this option.			

2.2.1 Static IP

VoIP Gateway			
Network Configuration			
VWAN Setting	WAN Setting		
LAN Setting	Connection mode	Static IP 🗸	
General Configuration	Current IP address	192.168.17.14	
Advanced Configuration	DNS Server mode	O Auto 💿 Manual	
	Primary DNS address	168.95.1.1	
Management	Secondary DNS address	168.95.192.1	
Reboot	WAN Link Speed	Auto 💌	
	HTTP port for WEB management (80,1024~65535)	80	
	Remote access restriction	Enable O Disable	
	Static IP		
	IP address	192.168.17.14	
	Subnet mask	255.255.248.0	
	Default gateway	192.168.16.254	
		ply	

1. Press the "**Apply**" button (at the bottom) after you finish to save changes.

VoIP Gateway	
Network Configuration	
WAN Setting	eboot
> LAN Setting	It will take some time to reboot. Please reload web page after that.
General Configuration	Note: Please remember your network setting before Reboot.
Advanced Configuration	
Management	Reboot
Reboot	

2. Press the "**Reboot**" button to apply the changes.

2.2.2 DHCP

			-14
VoIP Gateway			
Network Configuration			
WAN Setting	WAN Setting		
LAN Setting	Connection mode	DHCP 🗸	
	Current IP address	192.168.17.14	
General Configuration	DNS Server mode	O Auto Manual	
Advanced Configuration	Primary DNS address	168.95.1.1	
Management	Secondary DNS address	168.95.192.1	
Reboot	WAN Link Speed	Auto 👻	
	HTTP port for WEB management (80,1024~65535)	80	
	Remote access restriction	● Enable ○ Disable	
		pply	

1. Press the "**Apply**" button (at the bottom) after you finish to save changes.

2. Press the "**Reboot**" button to apply the changes.

Note:

When you are using DHCP in WAN and not connected, please make sure you connect Ethernet before use PC to connect to LAN port.

2.2.3 PPPoE

VoIP Gateway		
Network Configuration		
WAN Setting	WAN Setting	
LAN Setting	Connection mode	PPPoE V
General Configuration	Current IP address	192.168.17.14
	DNS Server mode	○ Auto ④ Manual
Advanced Configuration	Primary DNS address	168.95.1.1
Management	Secondary DNS address	168.95.192.1
Reboot	WAN Link Speed	Auto 👻
	HTTP port for WEB management (80,1024~65535)	80
	Remote access restriction	Enable Disable
	DDDoF Configuration	
	PPPoE userID	pppoe
	PPPoE password	•••••
	Reboot after remote host disconnection	
	Mtu	1492
	Apply	CANCEL

- 1. Input PPPoE user ID and password
- 2. Press the "**Apply**" button (at the bottom) after you finish to save changes.
- 3. Press the "CANCEL" button (next to the Apply button) to clear the values in the page.
- 4. Press the "**Reboot**" button to apply the changes.

2.2.4 LAN Setting

VolP Gateway		
letwork Configuration		
WAN Setting	LAN Setting	
LAN Setting	LAN IP address	192.168.123.123
	LAN mask address	255.255.255.0
eneral Configuration	DHCP server	Enable Disable
dvanced Configuration	IP address from	192.168.123.1
lanagement	IP address to	192.168.123.100
Reboot	Domain Name	voip
	Lease Time(sec)	86400
	DNS Server mode	Auto Manual
	Primary DNS address	168.95.1.1
	Secondary DNS address	168.95.1.2

ITEM	Description
LAN IP address	Specify the IP address of the SP5008A /
	SP5018A / SP5058A LAN port.
LAN mask address	Specify the mask address for SP5008A /
	SP5018A / SP5058A LAN port.
DHCP server	Enable/Disable DHCP function on the LAN port.
	Once enabled, the LAN ports will function as a
	DHCP server, network devices connected to
	them will be issued with IP addresses.
IP address from	When DHCP is enabled, you can specify the IP
	address to start from when assigning to attach
	network devices.
IP address to	When DHCP is enabled, you can specify the
	ending IP address assigned to the attached
	network devices.

ITEM	Description			
Domain Name	You can specify the domain name that will be			
	assigned by the DHCP server to the attached			
	network devices. The DHCP server will send			
	information on the "server host name" to the			
	DHCP client.			
Lease time(sec)	You can specify the maximum lease time of the			
	IP address allocated to the DHCP client.			
DNS server mode	Select the DNS behavior, you can choose the			
	following:			
	Auto			
	Manual			
	"DNS auto" will retrieve the DNS information sent			
	from the DHCP server.			
	"Manual" will look at the specified Primary and			
	Secondary DNS address.			
Primary DNS address	Specify the address of the Primary DNS.			
Secondary DNS address	Specify the address of the Secondary DNS.			

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

2.3 General configuration

To make VoIP calls, you will need a SIP account provided by the SIP Proxy you are registered with. To configure the relevant SIP settings, please refer to the instructions explained below.

2.3.1 PABX Mode (SP5018A only)

This quick setting is used for MICRONET SP5018A to operate in PABX connection mode between PSTN and traditional PABX. Enable PABX mode for ISP/ITSP scenario that forbids SIP call to/from PSTN via the gateway (SP5018A). The call scenario will be working as below:

- 1. For FXO incoming call, it will route to corresponding FXS directly (1 by 1)
- 2. For FXS outgoing call, it will route to VOIP except those prefix set in FXO dialing Prefix.
- 3. For VOIP incoming call, it will route to FXS based on the called number
- 4. When VOIP call is failed to be called out such as register fail or network issue, the call will be route to FXO as backup.
- 5. When MICRONET SP5008A / SP5018A / SP5058A is malfunction or power failure, the all call will be directly bypassed to FXO.

Network Configuration										
General Configuration	PABX Mode	○ ∎	nable 🛛 🔍 Di	sable						
PABX Connection	SIP Setting									
SIP Advanced Setting	>		Enable	IP Address	Port	Domain	Name	Expire Time(sec)	MW	/I TTL(s
Payload Type Setting	Primary proxy/	P2P IP	V	192.168.18.247	5060			120		0
QoS Setting	Outbound prov	KV.			5060					
Speed Dial Setting	Secondary pro:	xy			5060			60		
Caller ID Setting	Secondary Out	bound proxy			0					
	Representativ	ve Number Only 🔵	Yes 💿 No							
Syslog Setting	FXS SIP Setti	ing								
Advanced Configuration	FXS Line	Account		Number	Pas	sword		Display Name	Reg	Sta
	Line2	101	10	1	•••		101		Yes	Id
_	Linez			-			102		Yes	Id
Management	Line2	102	10	2						
Management	Contraction of the second s	102	10		•••		103		Yes	Id
Management	Line4			3	•••		103 104		Yes Yes	
Management	Line4 Line6 Line8	103 104	10	3						Id Id
Management Reboot	Line4 Line6	103 104	10	4						
Management	Line4 Line6 Line8	103 104	10	3		04		05		

PABX Connection	To enable PABX behavior or not.
SIP Setting	Please refer to 3.3.2.1
Representative Number Only	It is used (Yes) when you only have 1 SIP account and
	would like to be shared for all FXS lines. Please refer to

	3.3.2.1
Primary FXS SIP settings	When you have multiple SIP accounts for each FXS line,
	please set Representative Number Only to No. Then refer
	to 3.3.2.1 for the detail
FXO Dialing Prefix	When the prefix is set here, the call will be route to FXO
	instead of VOIP.

2.3.2 SIP Setting

etwork Configuration	-					_				
ieneral Configuration	Proxy Set	ting		and the second second	11	11 10 10 10				
			trable	IP Address 10.1.1.2	and an other states of	Domain	Mame		(SOC) 1	WI TTL(sec
SIP Setting	Outbound	oxy/P2P IP		10.1.1.2	5060			60	_	0
SIP Advanced Setting	Secondary				5060		- 11	60	1	0
Payload Type Setting	Contraction of the	Outbound proxy			0	<u> </u>		100		[V.
Line Setting	estatement)	ourbound proxy	1 1		10	1				
QoS Setting	Represen	tative Number C	onfigura	tion						
Speed Dial Setting	Enable		Account Number		Pas	Password		Display Rame		
Caller ID Setting	2		1008		1008				1008	
CDR Setting	1	onward	Forwa	ard Number	Ring	Type	Serial 1	Ring Time	1	itatus
Syslog Setting		isable 🗸	_		Serial ring	Υ.	10	(Sec)	1	lo/ No
dvanced Configuration	Hunting		-							
lanagement	Priority	Line Number	1	2	3	4	5	6	7	8
eboot	tinot	1000	2							
	Line2			2						
	Line3	1002								
	Linef	1003								
	LineS	1004								
	Line6									
	Line7	1006								
	tines	1007								

Primary proxy/P2P IP	Specify the data of primary proxy : Enable/Disable, IP
	address, Port#, Domain Name, Expire time and MWI TTL.
	The P2P mode will be explained in paragraph Appendix A
Secondary proxy	Specify the data of secondary proxy: Enable/Disable, IP
	address, Port#, Domain Name, Expire time and MWI TTL.
	When you enable secondary proxy, it will start to register no
	matter whether primary proxy is registered or not. However, it
	will be used only when primary proxy is not registered or the
	incoming call is coming from it.
Outbound proxy	Specify the data of Outbound proxy: Enable/Disable, IP
	address and Port#.
Secondary Outbound proxy	Specify the data of Outbound proxy for secondary proxy:
	Enable/Disable, IP address and Port#.
Representative Number	The representative number is working as a SIP trunk for the
	selected FXS line (for all FXS or FXO/FXS combination
	model) or FXO line (for all FXO model). When an incoming
	call to the representative number, the selected FXS or FXO
	port will be hunted.
Enable	Enable the Line, the default setting is "Enable" and it will

	Register or Unregister to SIP Proxy		
Account	Input the SIP Proxy registration account ID.		
Number	Input the phone number.		
Password	Input the password of IP Proxy registration account ID.		
Display name	Specify the Display name of the phone number		
Forward	Specify the Representative forwarding type to be used, only		
	choose busy		
Forward Number	Specify the number to be forwarded when the specified		
	forward condition is met.		
Ring Type	Select the Ring Type of representative number. You can		
	choose the following:		
	Serial ring (Follow the ring priority defined		
	below)		
	 Simultaneous(ring all) 		
Ring Time (s) for Serial ring	Specify the Ring Time for Serial ring		
Status	Displays the registration status, whether it is registered or not.		
Priority	Select the group of representative number, and specify the		
	priority.		
	Only the checked line will become the member of the		
	representative number.		
	The default setting L1~L8 is grouped.		

- 1. Enter the IP address and port number of the SIP proxy into the Primary proxy address and Port fields. Press the "**Apply**" button to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3. Web Administration

3.1 General configuration

3.1.1 SIP Advanced Setting

twork Configuration			
neral Configuration	SIP Advanced Setting		
SIP Setting	Local SIP port(1~65535)	5060	
IP Advanced Setting	Local RTP port(1~65535)	16384	
Payload Type Setting	Session Expire(sec)	0	
The Setting	Min Session Expire(sec)	0	
	Session Refresh Request	OUPDATE	e-INVITE
QoS Setting	Session Refresher	OUAC	⊙ UAS
Speed Dial Setting	Unregister All	O Enable	Disable
Caller ID Setting	Early Media Treatment	O Enable	Oisable
CDR Setting	Support SIP Ping (Nortel)	O Enable	 Disable
Syslog Setting	IP Anonymous Caller ID	O Enable	 Disable
dvanced Configuration	Support Message Waiting Indication (MWI	O Enable	 Disable
	SIP Message Resend Timer Base T1 (sec)	0.5 🗸	
anagement	Max. Response Time for Invite(1~30sec)	10	

Local SIP port (1~65535)	Specify the local SIP port's number.
Local RTP port (1~65535)	Specify the local RTP port's number.
Session Expire (Sec)	Specify the session expire time that will be used to
	negotiate with the remote host or proxy.
Min Session Expire (Sec)	Specify the minimum session expire time that other host
	or proxy will need to follow when calling the MICRONET
	SP5008A/SP5018A/SP5058A.
Session Refresh Request	Select the session refresh method that will be used on
	the MICRONET SP5008A/SP5018A/SP5058A, you can
	choose among the two methods:
	UPDATE
	Re-Invite
Session Refresher	Select who will perform the refreshes, you can choose
	among the two methods:
	UAC (Client)
	UAS (Server)
	This will add the parameter refresher=uac or uas in the

	Session Refresh Request message.
Unregister All	Send SIP unregister signaling message after the
	SP5008A / SP5018A / SP5058A has been restarted
Early media Treatment	Use early media treatment SIP protocol, where SIP
	invite messages will not include SDP.
Support SIP Ping	Special feature used with only Nortel's SIP proxy.
IP Anonymous Caller ID	When this feature is Enabled , all IP outgoing calls'
	Caller ID will not be displayed to the destination.(Please
	make sure your proxy server or soft switch
	supports the feature, if the proxy does not support
	it and you enable this feature, all IP outgoing calls
	will be dropped.)
	When Disabled , all IP outgoing calls' Caller ID will be
	displayed to the destination.
Support Message Waiting Indication	You can Enable or Disable the MWI function.(This
(MWI)	feature is for FXS only)
SIP Message Resend Timer Base (sec)	Specify the resend time in seconds for each SIP request
	message that has not received a response.
Max. Response Time for Invite	Specify the timeout period for SIP Invite messages.
(1~30sec)	For example, if the timeout period is 10 seconds, when
	the SP5008A / SP5018A / SP5058A sends an Invite
	message and does not receive a response within 10
	seconds, it will cancel the call.

- 1. Press the "**Apply**" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.1.2 Payload Type Setting

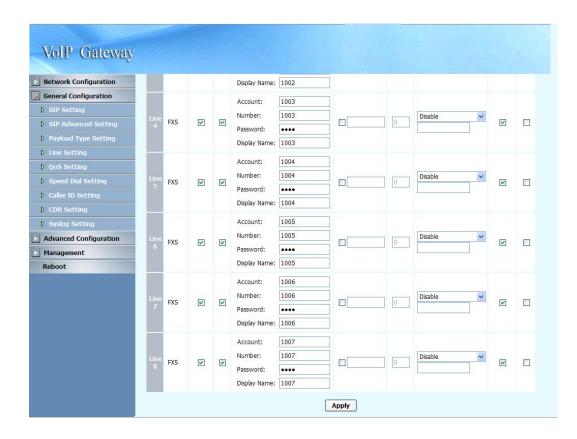
Network Configuration	Payload Type Setting	
General Configuration	RFC2833 payload type	101
SIP Setting	T.38 FAX payload type	96
SIP Advanced Setting	T.38 Redundancy payload type	104
Payload Type Setting	T.30 FAX by pass payload type	102
Line Setting	Modem by pass payload type	103
QoS Setting	Modem relay payload type	105
Speed Dial Setting		
Caller ID Setting	Apr	biy
CDR Setting		
Syslog Setting		
Advanced Configuration		
Management		

RFC2833 payload type	Specify the RFC2833 payload type (range is 96~128,
	however 100, 102~105 is reserved by other payload
	types).
T.38 FAX payload type	Specify the FAX payload type (range is 96~128,
	however 100, 102~105 is reserved by other payload
	types)
T.38 Redundancy payload type	Specify the Redundancy payload type (range is 96~128,
	default value is 104. 100, 102, 103, 105 is reserved by
	other payload types).
T.30 FAX by pass payload type	Specify the FAX by pass payload type (range is 96~128,
	default value is 102. 100, 103~105 is reserved by
	other payload types).
Modem by pass payload type	Specify the Modem by pass payload type (range is
	96~128, default value is 103. 100, 102, 104, 105 is
	reserved by other payload types).
Modem relay payload type	Specify the Modem relay payload type (range is
	96~128, default value is 105. 100, 102~104 is
	reserved by other payload types).

- 1. Press the "**Apply**" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.1.3 Line Setting

Network Configuration		0-111					_			
General Configuration	and the second second	Settin al Setti								
SIP Setting					20					
SIP Advanced Setting	0.0000000			Time	30					
Payload Type Setting	FAX				○ Enable ④ Disable					
Line Setting	Line	Conting		10			Wait		1	1
> QoS Setting		туре	Enable	Reg				Forward		DND
Speed Dial Setting							Hotline (sec)			
Caller ID Setting					Account: 1000					
CDR Setting	Line				Number: 1000		_	Disable 💌		1
> Syslog Setting	1	FXS	~		Password: ••••		0			
Advanced Configuration					Display Name: 1000					
Management					Account: 1001					
Reboot					Number: 1001		0	Disable		
	Line 2	FXS	~		Password: ••••					
					Display Name: 1001	_		·		
					Account: 1002					
	Line	FXS			Number: 1002		0	Disable 🗸		
					Password:					
					Display Name: 1002					



No Answer Forward Time	(FXS only)	If you enable the No Answer Forward				
		function (Representative number or				
		L1~L8 number), please specify the				
		time of no answer. The default setting				
		is 30 sec.				
FAX		Enable/Disable FAX T.38 function.				
Line1~Line8 relevant data						
Туре	Displays the port type o	f that particular line.				
Enable	Enable the line or not					
Reg	Register or Unregister to	o SIP Proxy				
Number	Displays the line number	ers that specified in SIP Setting.				
	Account: Input the SIP Proxy registration account ID.					
	Number: Input the phone number.					
	Password: Input the password of IP Proxy registration account					
	ID.					
	Display name: Specify	the Display name of the phone				
	number.					
	The first is the number r	registers to Primary proxy.				
	The default setting is 10	000~1007.				
Enable Hotline	Click the check box to e	nable hotline feature. If enabled, The				
	check box will display a	s 🗹 .				
Hotline Number		prward the call to when the Hotline				
	feature is enabled.					
Wait to Hotline(sec)	Specify the time (sec) for wait to hotline, the default value is 0.					
Forward Type	Specify the forwarding type to use, you can choose the					
	following:					
	• Disable					
	Unconditional					
	• Busy					
	• No Answer (FXS c	only)				
	Busy and No Answ	ver (FXS only)				
	The "Disable" option wil	I allow you to disable this particular				
	function.					
Forward Number	Specify the number to for	prward the call to when the call				
	forwarding feature is en	abled.				
Call Waiting (FXS only)	Enable/Disable per-line	Call Waiting function.				
DND (FXS only)	Enable/Disable per-line	DND (Do Not Disturb) function.				
Greeting (FXO only)	Enable/Disable Greeting	g for FXO				

- 1. Press the "**Apply**" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.1.4 Qos Setting

vork Configuration			
ral Configuration	Туре	• DSCP • ToS	
? Setting	Differentiated Servi	ices Code Point Setting	
P Advanced Setting	DSCP RTP	0 (Best Effort, BE)	~
	DSCP Signal	0 (Best Effort, BE)	~
oad Type Setting	ToS Setting		
Setting	ToS RTP	000 (0) - Routine 🗸	
	ToS Signal	000 (0) - Routine 🗸	
ed Dial Setting			
		Apply	
Setting			
og Setting			
ced Configuration			
jement			

Туре	Select Qos Type: DSCP or ToS
Differentiated Services Code Point Setting	g (DSCP)
DSCP RTP	Select the DSCP value for RTP (voice packets), the
	value in the drop down list is expressed in binary
	format, you can choose to meet your network
	environment.
DSCP Signal	Select the DSCP value for SIP message, the value in
	the drop down list is expressed in binary format, you
	can choose to meet your network environment.
ToS Setting	
ToS RTP	Select the ToS value for RTP (voice packets), the
	value in the drop down list is expressed in binary
	format, you can choose to meet your network
	environment.
ToS Signal	Select the ToS value for SIP messages, the value in
	the drop down list is expressed in binary format, you
	can choose to meet your network environment.

- 1. Press the "**Apply**" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.1.5 Speed Dial Setting

Speed Dial

twork Configuration						
eneral Configuration	Speed Dial Editor	and the formation	and the state			
SIP Setting	Speed Dial Numb	per Telephone N	umber	Name		dd
SIP Advanced Setting						aa
Payload Type Setting	Speed Dial		1 - 1 1			
ine Setting	Index	Speed Dial Number		e Number	Name	
QoS Setting	1	1	0/020	69888	songyo	Del
Speed Dial Setting						
Caller ID Setting						
CDR Setting						
Syslog Setting						
Ivanced Configuration						

Speed Dial Editor	Specify the speed Dial Number/Telephone Number/Name,			
	then press the Add or Del button to add or delete record			

Peer to Peer call

You can use speed dial to do the peer to peer call as follows:

Network Configuration					
General Configuration	Speed Dial Editor				
SIP Setting	Speed Dial Nun	iber Telephone M	lumber Name		
SIP Advanced Setting				Add	J
Payload Type Setting	Speed Dial				
	Index	Speed Dial Number	Telephone Number	Name	
Line Setting	1	2000	2000@192.168.23.58:5060	songyo	De
D Qos Setting	2	2001	2001@192.168.23.58:5062	daniel	De
Speed Dial Setting	3	2002	2002@192.168.23.58:5064	bela	De
Caller ID Setting	4	2003	2003@192.168.23.58:5066	jolin	De
CDR Setting	5	888	0702069888@192.168.17.56	money	De
Syslog Setting	6	168	0702069168@192.168.18.168	168	De
Advanced Configuration	U	100	0702005100@152.100.10.100	100	

Speed Dial Editor	Specify the speed Dial Number/Telephone
(In P2P application)	Number/Name, then press the Add or Del button
	to add or delete record
	The format of "Telephone Number" is "#@ip
	address: port", for example
	2000@192.168.23.58:5060

3.1.6 Caller ID Setting

	-			
WID C .				
VoIP Gateway				
Network Configuration			_	_
General Configuration) Setting		
SIP Setting	Line1	Disable Disable	*	Auto
SIP Advanced Setting	Line2	DTMF		
Payload Type Setting	Line3	FSK(Bellcore) ETSI(Before Ring)	
Line Setting	Line4	ETSI(Between Ri		
	Line5	Disable	*	
QoS Setting	Line6	Disable	*	
Speed Dial Setting	Line7	Disable	*	
Caller ID Setting	Line8	Disable	*	
CDR Setting				
Syslog Setting	DTMF S	etting		
Advanced Configuration	DTMF Ca	ler ID Start Symbo	ile 🗌	D
	DTMF Ca	ler ID End Symbol		С
Management				_
Reboot		Apply)

Caller ID Setting (Line 1~Line 8)	Select the (Line 1~Line 8)Caller ID generation
	type to use, you can choose the following:
	• Disable
	• DTMF
	FSK(Bellcore)
	ETSI(Before Ring)
	ETSI(Between ring)
	FXO only choose Enable/Disable the caller ID
	detection
	AUTO: You can choose different caller ID type by
	line. If Line1~Line 8 uses the same type, you
	only need to set line 1 and click the "Auto" button,
	then the other lines will set the same type
	automatically.
	The "Disable" option will allow you to disable this
	particular function.
DTMF Caller ID Start Symbol	Specify the DTMF Caller ID Start Symbol
	The default symbol is D.
DTMF Caller ID End Symbol	Specify the DTMF Caller ID End Symbol

		The default symbol is C.
1. Pre	ess the " Apply " button (at the b	pottom) after you finish to save changes.

2. Press the "**Reboot**" button to apply the changes.

3.1.7 CDR Setting

VoIP Gateway		
Network Configuration General Configuration	CDR Setting	
SIP Setting SIP Advanced Setting	CDR mode CDR server address	Enable Disable 192.168.19.93
 Payload Type Setting Line Setting 	CDR server port	514
 QoS Setting Speed Dial Setting 		
 Caller ID Setting CDR Setting 		
 Syslog Setting Advanced Configuration 		
Management Reboot		

CDR mode	Select the CDR mode for Enable or Disable . If	
	you Enable this feature, please specify the CDR	
	Server address and port number at the CDR	
	server address and port's text box, then you can	
	get Call Detail Data form CDR Server.	
CDR Server address	If you Enable the CDR mode, please specify the	
	IP address of CDR Sever for data storage.	
CDR Server port	Specify the CDR Server port number,	
	The default port number is 514.	

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

NOTE: To receive the SYSLOG CDR, you need to have a syslog server to collect the CDR from MICRONET SP5008A / SP5018A / SP5058A. The following is a tool you can be used for testing purpose which can be downloaded from http://tftpd32.jounin.net/. You need to enable syslog server from settings before you can use it.

Tftpd32 by Ph. Jounin		
Current Directory C:\Docu	ments and Settings\Admir	nistrator.I Browse
Server interfaces 192.168	.19.93	▼ Show Dir
Tftp Server Tftp Client	DHCP server Syslog ser	ver
<15>2008-09-23 13:32:19 <15>2008-09-23 13:32:54		
About	Settings	Help

3.1.8 Syslog Setting

This syslog is used to send the debug log from MICRONET SP5008A / SP5018A / SP5058A to syslog server.

VolP Gateway		
Network Configuration		
General Configuration	Syslog Setting	
SIP Setting	Syslog mode	SIP message 👻
SIP Advanced Setting	Syslog server address	192.168.19.93
Payload Type Setting	Syslog server port	514
Line Setting		Apply
QoS Setting		
Speed Dial Setting		
Caller ID Setting		
CDR Setting		
Syslog Setting		
Advanced Configuration		
D Management		
Reboot		

Syslog mode	Select the Syslog mode for Enable or Disable. If	
	you Enable this feature, please specify the	
	Syslog Server address and port number at the	
	Syslog server address and port's text box, then	
	you can get detail system log from Syslog server.	
Syslog Server address	If you Enable the Syslog mode, please specify	
	the IP address of Syslog Sever for data storage.	
Syslog Server port	Specify the Syslog Server port number,	
	The default port number is 514.	

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

NOTE: To receive the SYSLOG debug information, you need to have a syslogd server to collect the debug information from MICRONET SP5008A / SP5018A / SP5058A. The following is a tool you can be used for testing purpose which can be downloaded from <u>http://tftpd32.jounin.net/</u>. You need to enable syslog server from settings before you can use it.

	h. Jouni		u: 141		
Junent Directory	IC:/Doc	C:\Documents and Settings\Administrator.I			Browse
Server interfaces	192.16	192.168.19.93			Show <u>D</u> ir
Tftp Server Tf	tp Client	DHCP server	Syslog server	1	
<15>2008-09-2; <15>2008-09-2; <15>2008-09-2; <15>2008-09-2; <15>2008-09-2; <15>2008-09-2; <15>2008-09-2; <15>2008-09-2; <15>2008-09-2;	3 13:37:44 3 13:37:44 3 13:37:44 3 13:37:49 3 13:37:54 3 13:37:59 3 13:38:04	ISIP Receiven SIP Receiven SIP Receiven SIP Receiven SIP Receiven SIP Receiven SIP Receiven	1sg <reg> cid= 1sg <reg> cid= 1sg <pipe>pipe 1sg <pipe>pipe 1sg <pipe>pipe 1sg <pipe>pipe 1sg <pipe>pipe</pipe></pipe></pipe></pipe></pipe></reg></reg>	=8,iProxy =8,iProxy E ventH E ventH E ventH E ventH E ventH	num=0,Ap num=0,Ap andle is co andle is co andle is co andle is co andle is co
1	1				
<u></u> lear					

3.2 Advanced Configuration

3.2.1 System setting

Network Configuration	System Setting						
General Configuration	prack	O Enable O Disable	Flash key function	Transfer 🗸 🗸			
Advanced Configuration	ROH	O Enable	Keypad DTMF type	RFC2833 🐱			
	Send billing signal	O Reverse	End of dial key	# 💙			
> System Setting	IP Address announcement	Enable Disable	DTMF Detection Sensitivity	1 🗸			
SNTP Setting	T.38 NoAttribute	O Enable O Disable	Dial Wait Timeout (1~60sec)	20			
Codec Setting	FAX redundancy depth	0	Inter Digits Timeout (1~5sec)	3			
Voice Setting	Т.38 FAX Туре	T.38 💌	FAXByPass Keyword	X-fax			
Tone Setting	T.30 FAXByPass Codec	G.711 a-law 🔽	FAXByPass Keyword				
Phone Setting	System Setting						
Digit Manipulation	Built-in Call Hold Music		○ Enable				
Dial Plan	DTMF Duration		95 ms				
Management	DTMF Interdigit Time		85 ms				
Reboot	Ring Time Limit (10~600sec)		120				
	Loop Current Drop Duration (0:	disable, 100~1000ms)	0				
	FXS Voltage Drop		Disable 🗸	Disable			
	ping ip to keep alive network		x				
	ping timer(sec)		5				

prack	PRACK is defined in RFC 3262: Reliability of
	Provisional Responses in SIP. You can
	accommodate your softswitch (Proxy Server) to
	Enable or Disable this feature.
ROH (FXS only)	Receiver-Off-Hook (ROH) Tone
	A ROH tone is sent to the subscriber to inform
	him that his receiver is off-hook.
	You can Enable/Disable this option.
Send billing signal (FXS only)	Polarity Reversal for billing signal, you can
	enable (Reverse)/Disable the feature.
T.38 NoAttribute	No attribute (Fax version, BitRate, Buffer,
	Datagram) indicated in T.38 Re-Invite with
	Session Description Protocol (SDP).
	You can Enable/Disable this option.
FAX redundancy depth	Specify the resend times (0~3)for FAX error
	packet,
Т.38 FAX Туре	Select the FAX Type to use, you can choose the
	following:
	• T.38
	• ByPass

	Auto
T.30 FAXByPass Codec	Select the FAX ByPass Codec to use, you can
	choose the following:
	• G.711 a-law
	• G.711 u-law
	• G.726 32k
Flash key function (FXS only)	Select the function of Flash key, you can choose
	the following:
	Disable
	Transfer
	SIP Message
Keypad DTMF type	Select the type of Keypad DTMF, you can
	choose the following:
	• In-Band
	• RFC2833
	SIP Info
End of dial key	Select the End of dial key, you can choose the
	following:
	Disable
	• *
	• #
DTMF Detection Sensitivity	Specify the grade of DTMF Detection Sensitivity,
	the value range is (1~5)
Dial Wait Timeout (1~60sec)	Specify the duration of dial waiting when the
	receiver is off hook. The range is 1~60 sec.
Inter Digits Timeout (1~5sec)	Specify the interval of input digits, if the interval is
	over the setting, the system will end the dial and
	send out the DTMF. The limitation range is
	1~5sec.
FAXByPass Keyword	Some SIP Proxy need specify special keyword
	for FAXByPass function. Input the data as SIP
	Proxy required.
FAXByPass Keyword	Some SIP Proxy need specify special keyword
	for FAXByPass function. Input the data as SIP
	Proxy required.
IP Address announcement	You can Enable/Disable this function,
	If you select Enable, you can connect T1 port
	with a phone set and press #120#, you will hear

	the announcement of IP address of LAN port, or
	press #126# to get WAN port IP address.
	FXO please following under step:
	1. You can get a PSTN line and connect to the
	L1 FXO port.
	2. Use another PSTN phone to dial the PSTN
	number (in step 1you connected on
	FXO-08), you will hear a second dial tone
	or greeting (please dial extension number).
	3. Press #126# on the phone set, and you will
	hear an IVR announcing the current IP
	address of the WAN port.
	4. Press #120# on the phone set, and you will
	hear an IVR announcing the current IP
	address of the LAN port.
Built-in Call Hold Music	System built-in music of call hold, you can
	Enable/Disable this feature.
DTMF Duration	Specify the DTMF tone duration.
DTMF Interdigit Time	Specify the interval of DTMF digit
Ring Time Limit(10~600sec)	Specify the limitation of Ring time for incoming
(FXS only)	call, when the ring is over the limit, system will
	drop the call. The default range is 10~600sec.
Loop Current Drop Duration (0:disable,	Specify the duration (100~1000ms) of loop
100~1000ms)	current drop, 0 for disable. This feature is used
	when the SP5008A (FXS) are connected with
	answering machines. When the remote site
	disconnects, the system will drop FXS port's
	voltage to 0, and make the answering machines
	disconnect.
FXS Voltage Drop (FXS only)	This option is used when a stand alone relay box
	containing a PSTN and FXS port is connected to
	the SP5008A's FXS port. In this special
	application, if there is a network or registration
	failure, the system will drop the FXS port's
	voltage to 0, when the relay box detects the
	status, it will switch the line to PSTN.

	The default setting is "Disable", if you are not
	using this particular special application
	mentioned above, please do not enable this
	function.
ping ip to keep alive network	Specify the IP for pinging to make sure the
	network keeps alive.
ping timer(sec)	Specify the interval of ping timer(sec)

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.2.2 SNTP Setting

VoIP Gateway		
Network Configuration	SNTP Setting	
General Configuration		0
Advanced Configuration	SNTP mode	
System Setting	SNTP server address	168.95.195.12
	Time Zone-GMT	GMT+08:00 😪
 SNTP Setting Codec Setting 	Time setting	YYYY/MM/DD 2008 / 09 / 25 HH : MM : SS 11 : 11 : 45
Voice Setting		
Tone Setting		Apply
Phone Setting		
Digit Manipulation		
Dial Plan		
Management		
Reboot		

SNTP mode	Select the SNTP mode : On or Off	
SNTP server address Specify the SNTP server address for time synchroniz		
Time Zone -GMT	Select the Time Zone of your location	
Time setting	You can specify the time with year/month/date /hour/minute	
	/second when you select the SNTP mode with "Off".	

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.2.3 Codec Setting

VoIP Gateway			
Network Configuration			
General Configuration	Codec Setting		
Advanced Configuration	Codec Priority	Codec Packet Size	BandWidth Required
	First G.729 💙	G.7110 20 👻	85.6 kbps
System Setting	Second G.711U V	G.711A 20 🗸	85.6 kbps
SNTP Setting	Third G.711A V	6.723 30 🗸	
Codec Setting			
	Fourth G.723 💌	G.729 20 🔽	29.6 kbps
Voice Setting	Fifth G.726 💌	G.726_32 20 💌	53.6 kbps
Tone Setting			
Phone Setting		Apply	
Digit Manipulation			
Dial Plan			
Management			
Reboot	1		

Codec Priority	You can specify the priority of the codec from First to Fifth (first					
		highest priority and Fifth being the lowest). You				
	•	e the following codec's:				
	• G711U					
	• G711A					
	• G723					
	• G729A					
	• G726					
Codec Packet Size	You can specify the packet size in the drop down list for each					
	particular	codec, you can choose the following:				
	G711U 10,20,30,40,50,60					
	G711A 10,20,30,40,50,60					
	G723 30,60,90					
	G729A 10,20,30,40,50,60					
	G726	10,20,30,40,50,60				
Bandwidth Required	When you	select the codec packet size shown above, system				
	will set de	fault requirement of bandwidth.				

- 1. Press the "**Apply**" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.2.4 Voice Setting

Network Configuration					
	Voice Setting				
General Configuration Advanced Configuration	Min Jitter Buffer (0~150)	Max Jitter Buffer (0~200)	OPTFactor (0~13)	VAD	Echo cancellation
 System Setting SNTP Setting 	0	200	7	 Enable Disable 	 Enable Disable
Codec Setting			Demokra		
Voice Setting		Local voice volume	Remote receive	DTMF volume	
Tone Setting			volume (0~63)	(0~63)	
Phone Setting	Line1	32	32	27	
Digit Manipulation	Line2	32	32	27	
Dial Plan	Line3	32	32	27	
Management	Line4	32	32	27	
Reboot	Line5	32	32	27	
	Line6	32	32	27	
	Line7	32	32	27	
	Line8	32	32	27	

Jitter Buffer					
Minimal Delay	Specify the minimal delay of the jitter buffer. The range is				
	0~150 ms and the default setting is 0 ms.				
Maximal Delay	Specify the maximal delay of the jitter buffer. The range is				
	0~200 ms and the default setting is 200 ms.				
OPTFactor	Specify the dynamic jitter buffer frame error/delay optimization				
	factor, the range is 0~13.				
VAD	Enable/Disable the VAD (Voice Activity Detection) feature.				
	This is supported on all codecs that the FXS-FXO equips.				
Echo cancellation	Enable/Disable the echo cancellation feature. The default				
	setting is "Enable".				
Local voice volume	Specify the volume gain of the voice in the local side (0~63,				
	default is 32). You can set this option for each of the 8 lines.				
Remote receive volume	Specify the volume gain of the voice in the remote side (0~63,				
	default is 32). You can set this option for each of the 8 lines.				
DTMF volume	Specify the volume gain of the DTMF (0~63, default is 27).				

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- **2.** Press the "**Reboot**" button to apply the changes.

3.2.5 Tone Setting

Network Configuration			_	_	_	_			
General Configuration	Tone Setting					ANALS:			
Advanced Configuration			Ring back tone		Call- waiting	Voice- Notify	ROH Tone	Disconnect tone1	Disconne tone2
System Setting	Frequency high (0,300~1980)	440	480	620	440	0	480	620	620
SNTP Setting	Frequency low (0,300~1980)	350	440	480	350	0	0	480	480
Codec Setting	Frequency high level	13	19	24	24	13	6	8	13
Voice Setting	(0~63)		15					•	15
Tone Setting	Frequency low level (0~63)	13	19	24	24	13	0	8	13
Phone Setting	Tone1 On(0~8000)	300	100	50	25	20	500	20	20
Digit Manipulation	Tone1 Off(0~8000)	0	200	50	25	20	0	0	0
Dial Plan	Tone2 On(0~8000)	0	0	0	25	20	0	0	0
Management	Tone2 Off(0~8000)	0	0	0	25	20	0	0	0

Dial tone	Specify the pattern of the Dial tone, you can adjust the
	high frequency, low frequency, high level, low level, the
	On and Off time for tone 1 and 2.
Ringback tone (FXS only)	Specify the pattern of the Ringback tone, you can adjust
	the high frequency, low frequency, high level, low level,
	the On and Off time for tone 1 and 2.
Busy tone	Specify the pattern of the Busy tone, you can adjust the
	high frequency, low frequency, high level, low level, the
	On and Off time for tone 1 and 2.
Call-waiting (FXS only)	Specify the pattern of the call-waiting tone, you can
	adjust the high frequency, low frequency, high level, low
	level, the On and Off time for tone 1 and 2.
Voice-Notify (for FXS+PSTN only)	Specify the pattern of the Voice-Notify, you can adjust
	the high frequency, low frequency, high level, low level,
	the On and Off time for tone 1 and 2.
ROH Tone (FXS only)	Specify the pattern of the ROH Tone, you can adjust the
	high frequency, low frequency, high level, low level, the
	On and Off time for tone 1 and 2. The ROH tone is a
	single high frequency tone used to warn users that their
	phone is not placed on-hook (hang up) correctly.
Disconnect tone 1	Specify the pattern of the disconnect tone for disconnect
	tone 1 (first set), you can adjust the high frequency, low
	frequency, high level, low level, the On and Off time for
	tone 1 and 2.

	NOTE: If the disconnect tone only has single frequency,
	please set it to low frequency. If the disconnect tone
	only has single cadence, please set it to Tone 1.
Disconnect tone 2	Specify the pattern of the disconnect tone for disconnect
	tone 2 (second set), you can adjust the high frequency,
	low frequency, high level, low level, the On and Off time
	for tone 1 and 2.
	NOTE: If the disconnect tone only has single frequency,
	please set it to low frequency. If the disconnect tone
	only has single cadence, please set it to Tone 1.

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.2.6 Phone Setting

VolP Gateway	y						
Network Configuration							
General Configuration	Phone Set	-		-			
Advanced Configuration		Ringing Frequency	Ringing ON (100~8000)	Ringing OFF (100~8000)	Ringing level	Flash low (60~2000)	Flash high (60~2000)
System Setting		(15~100)	1000	4000	(0~94) 94	400	800
SNTP Setting	Primary Ringing	20	1000	4000	94	400	800
Codec Setting	Secondary	20	1000	4000	94		
Voice Setting	Ringing						
> Tone Setting	Min. Digit Count	0 ((cdisable,1~10):)			
Phone Setting	Country	default			~		
Digit Manipulation				_			
Dial Plan			Ap	ply			
Management							
Reboot							

Primary Ringing	
Ringing Frequency	Specify the Ringing frequency value.
	ringing frequency : 15~100 (Unit : Hz)
Ringing ON	Specify the Ringing ON value.
	ringing ring ON : 0~8000 (Unit : ms)
Ringing OFF	Specify the Ringing OFF value.
	ringing ring OFF : 0~8000 (Unit : ms)
Ringing level	Specify the ringing level.
	ringing level : 0 ~ 94 (Unit : V)
Flash low	Specify the value of the flash (low).
	: 60~2000 (Unit : ms).
	If the phone-set's flash time is smaller than the Flash Low
	setting, the flash will be ignored.
Flash high	Specify the value of the flash (high).
	: 60~2000 (Unit : ms)
	If the phone-set's flash time is larger than the Flash high
	setting, the flash will be handled as hang-up.

Secondary Ringing (FXS only)

Note: The feature will be enabled automatically when the Min. Digit Count has been enabled and specified. It is used to have different ring cadence when the incoming caller number is shorter than the setting of "Min. Digit Count"

Ringing Frequency	Specify the Ringing frequency value.
	ringing frequency : 15~100 (Unit : Hz)
Ringing ON	Specify the Ringing ON value.
	ringing ring ON : 0~8000 (Unit : ms)
Ringing OFF	Specify the Ringing OFF value.
	ringing ring OFF : 0~8000 (Unit : ms)
Ringing level	Specify the ringing level.
	ringing level : 0 ~ 94 (Unit : V)
Min. Digit Count	Specify the minimum digit count (1~10, 0: Disable), this
	feature is used to change the ringing frequency by detecting
	the digit length of incoming calls' number. When the digit
	length of an incoming caller number is greater than the
	specified setting, the system will use primary ringing. If the
	digit is less than the specified setting, the system will use the
	secondary ringing.
Country	Specify the ringing standard to use.

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.2.7 Digit Manipulation

eneral Configuration	Digit Manipul	esting Distance						
dvanced Configuration	the second se		Net State					
System Setting	Run			11				
SITT Setting	Digit Manipul	ation Editor						
Codec Setting	Ben _ even and _ even	Prefix	Drop					
Voice Setting	Apply		DISABLE 🛩					
Tooe Setting		Index Prefix	Drap	Insert.				
Phone Setting								
Digit Manipulation	FXO Dial Pref	K.	12443		1993		and a	
Dial man	01		01		(D-4)	_	45	
anagement	06	07		<u>ا</u>	09		10	
sboot	11	12	3.3		14		15	
					and the second s	_	 1000 C	

Digit Manipulation Testing	This option allows users to test the digit manipulation rule
	you set.
Digit Manipulation Editor	With this option, you can specify whether to add digits to a
	prefix number or drop a prefix number.
	For example, if the user sets:
	First Example
	Prefix: 02 (matched prefix)
	Drop: Enable (drop prefix)
	Insert:
	If the user dials 0282265699, the resulting dial out number
	will be 82265699.
	Second Example
	Prefix: 7
	Drop: Disable
	 Insert: 886
	If the user dials 778, the resulting dial out number will be
	886778.
	Third Example (Only applicable for SP5058A FXO)
	• Prefix: 8226
	Drop: Disable
	 Insert: 02
	If the user dials 82265699, the resulting dial out number
	will be 0282265699.
	You can configure up to 50 entries in the Digit
	Manipulation Editor.

FXO Dial Prefix	For outgoing call, the default will be made to VOIP.
	However, if you set the FXO prefix here, the call will be
	route to FXO instead of VOIP. It can be applied to FXO
	model only.

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "Reboot" button to apply the changes.

3.2.8 Dial Plan

VolP Gateway						
Network Configuration General Configuration	Dial Plan Editor					
Advanced Configuration	Function	Leading	digit	Total di	git count	
 System Setting 	Enable 🐱 Dial Plan				(1~25)	Add
SNTP Setting	Index	Function	Leading	ı diait	Totle digi	trount
Codec Setting	muex	runceon	Leading	y orgine	Totle digi	
Voice Setting						
▶ Tone Setting						
Phone Setting						
Digit Manipulation						
Dial Plan						
Management						
Reboot						

Dial Plan Editor	Using this feature, users can specify the number that will be
	immediately dialed out without having to press the "#" (at the
	end of the dialed number) on the keypad or until the dial time
	timeout period. The number can be specified depending on
	the length of the dialed number, or the prefix of the dialed
	number.
	For example, if the user sets:
	First Example
	Function: Enable
	Leading digit: 02
	Total Digit count: 10
	If the user dials a 10 digit number with a prefix of 02 (e.g.
	0282265699), the MICRONET SP5008A / SP5018A / SP5058A
	will immediately detect it and dial this number straight away.
	Second Example
	Function: Enable
	Leading digit:
	Total digit count: 8
	If the user dials an 8 digit number (e.g. 82265699), the
	MICRONET SP5008A / SP5018A / SP5058A will immediately
	detect it and dial this number straight away.
	Third Example
	Function: Disable

Leading digit: 02
• Total digit count: 10
If the user set the Function parameter as "Disable", the call
number with a length of 10 digits and a prefix of 02 will proceed
as normal. The user will need to wait until dial timeout period
for the call to be made, or press the "#" on the keypad at the end
of the dialing number to make the call.
You can configure up to 50 entries in the Dial Plan.

1.Press the "Apply" button (at the bottom) after you finish to save changes.2.Press the "Reboot" button to apply the changes.

3.3 Management

3.3.1 Provision Server

k Configuration	Provision Server	
Configuration	Provision server Mode	C Enable O Disable
d Configuration	Provision server IP address	
ment	Provision server port	61003
on Server	Provision cycle time	0
Reload Setting	Provision default time	00:00 (HH:MM)
de Firmware		(HH,MM)
to Default		Apply
rk Status		
n Info.		
tatus		
ord		

Note: If you need this requirement, Please contact MICRONET for availabilities.

Provision server Mode	Enable/Disable provision function
Provision server IP address	Specify the Provision Server's IP address.
Provision server port	Specify the Provision server port
Provision cycle time	Specify the cycle time of the provisioning.(unit: sec)
Provision default time	Specify a scheduled time in a day

- 1. Press the "**Apply**" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.3.2 Save-Reload setting

VoIP Gateway			
Network Configuration			
General Configuration	Save-Reload Sett		
Advanced Configuration	Export File	Export	
Management	Import File		瀏覽 Import
Provision Server			
Save-Reload Setting			
Upgrade Firmware			
Reset to Default			
Network Status			
Version Info.			
Port Status			
D Password			

Export File	Click the "Export" button to export "user.cfg" data
Import File	Specify the file path and file name to Import the configure
	data.

Press the "**Reboot**" button to apply the changes.

3.3.3 Upgrade Firmware

TFTP V
IFIP V
User name Password
Start
瀏覽 Start

Download mode	Select the connection method to update the MICRONET
	SP5008A/SP5018A/SP5058A's firmware, you can choose
	the following:
	• TFTP
	● FTP
TFTP/FTP server IP address	Specify the TFTP/FTP server's IP address.
FTP login	Specify the login username/password for the FTP server.
Target file name	Specify the target file name for the firmware.
Http Upload	Specify the location of the firmware for uploading through
	Http.

Updating the firmware by FTP

Configuration	
Configuration Upgrade Firmware	
d Configuration	FTP V
TFTP/FTP server IP address	
FTP login	User name Password
Target file name	Start
eload Setting	
e Firmware	
to Default Http Upload	瀏覽 Start
k Status	Bise
Info.	After pressing start, please wait for success message, and DO No
atus	
ord	

- 1. Select FTP mode in the drop down list.
- 2. Key in the IP address, login name, password of your FTP server and specify the correct filename of the firmware.
- 3. Press the Start button (next to the Target file name text box) to execute the upgrade process.
- 4. Please wait while the device updates itself with the firmware.
- 5. After the update process is finish, you will be taken to a web page indicating that it was successful (see figure below).
- 6. Press the "**Reboot**" button to apply the changes.

Updating the firmware by TFTP

VolP Gateway		
Network Configuration General Configuration Advanced Configuration Nanagement Provision Server Save Reload Setting	Upgrade Firmware Download mode IFTP/FIP server IP address FTP login Target file name	TFTP V User name Password Start
D Upgrade Firmware D Sect to Default D Hetwork Status D Version Info, P Port Status D. Port Status D. Port Status	Http Upkaad	After pressing start, please wait for success message, and DO NOT power off.

- First, download the TFTP program from our website. Unzip the TFTP to a directory that you desire in your hard drive and execute the TFTP program. Make sure that the TFTP program points to the directory of where your firmware is stored. Now, leave the TFTP program running and switch back to the MICRONET SP5008A / SP5018A / SP5058A web configuration interface.
- Under Device Management => Software Upgrade select TFTP mode in the drop down list.
- 3. Key in the IP address of the TFTP server and specify the correct filename of the firmware.
- 4. Press the Start button (next to the Target file name text box) to execute the upgrade process.
- 5. Please wait while the device updates itself with the firmware.
- 6. After the update process is finish, you will be taken to a web page indicating that it was successful (see figure below).
- 7. Press the "**Reboot**" button to apply the changes.

Updating the firmware by HTTP

VolP Gateway				
Network Configuration	Upgrade Firmware			_
Advanced Configuration	Download mode	TFTP 🚩		
Management Provision Server Save-Reload Setting	TFTP/FTP server IP address FTP login Target file name	User name	Password	
Upgrade Firmware D Root to Defent Metwork Status	Http Upload		調理Start	
 Version Info. Port Status 		After pressing s	tart, please wait for success mes	sage, and DO NO ^T power off.
Reboot				

- Under Device Management => Software Upgrade web menu, specify the location of the firmware by clicking the Browse button next to the Http Upload text box.
- 2. You will be prompted with a window requesting the location of the firmware.
- 3. Locate the firmware that is stored in your hard drive.
- 4. Once located, click the Open button.
- 5. Back in the web configuration menu, press the Start button (next to the Http Upload's browse button) to execute the upgrade process.
- 6. Please wait while the device updates itself with the firmware.
- 7. After the update process is finish, you will be taken to a web page indicating that it was successful (see figure below).

Note: For consistency, it is recommended to reload default setting every time you update the firmware on the MICRONET SP5008A /SP5018A / SP5058A. However, you will lose all the settings configured on the MICRONET SP5008A / SP5018A / SP5058A except Network configuration. For more details on reload default setting, please refer to the next page below.

3.3.4 Reset to Default

N ID Color	
VolP Gateway	and the second of the second second
Network Configuration	Reset to Default
General Configuration	Warning!!All configuration will be reset to factory default values.
Advanced Configuration	warning: An configuration will be reset to ractory default values.
Management	Note:After Reset to Default, please re-configure all settings except Network configuration.
Provision Server	
Save-Reload Setting	Reset
D. Upgrade Timevare	
▶ Reset to Default	
Network Status	
Version Info.	
Port Status	
Password	
Reboot	

Users can restore back to factory default settings using this feature. The password of the account and the network configurations are the things that will not be changed when this feature is executed.

3.3.5 Network Status

k Status		
on mode	StaticIP	
IP address	192.168.17.14	
nask	255.255.248.0	
jateway	192.168.16.254	
ONS address	168.95.1.1	
ONS address	168.95.1.2	
с	00:01:A8:04:CE:9C	
	P address nask jateway DNS address DNS address	P address 192.168.17.14 mask 255.255.248.0 jateway 192.168.16.254 NNS address 168.95.1.1 NNS address 168.95.1.2

Connection mode	Displays the current connection mode.
Current IP address	Displays the current IP address of the WAN port.
Subnet mask	Displays the current subnet mask's IP.
Default gateway	Displays the current default gateway's IP.
Primary DNS address	Displays the current primary DNS address.
Second DNS address	Displays the current secondary DNS address.
WAN MAC	Displays the MAC address of the WAN port.

3.3.6 Version Info.

Boot version Boot version Avanced Configuration Post version BOOT_2008_01_18.dlf	
Boot version BOOT_2008_01_18.dlf	
Post version POST 2008 02 01.dlf	
Application version 8fxs_8dspCh_sip_105	
Provision Server	
Save-Reload Setting	
Jpgrade Firmware	
Reset to Default	
Network Status	
Version Info.	
ort Status	
assword	

Boot version	Displays the current boot version loaded on the MICRONET
	SP5008A / SP5018A / SP5058A.
Post version	Displays the current post version loaded on the MICRONET
	SP5008A / SP5018A / SP5058A.
Application version	Displays the current application version loaded on the
	MICRONET SP5008A / SP5018A / SP5058A.

3.3.7 Port Status

Network Configuration												
General Configuration	Port Statu	Port Status										
Advanced Configuration	Item	Port Type		Status	Register Proxy							
	-	Forcitype		June	10.1.1.2							
Management	Port 1	FXS	Yes	Idle	Registering							
Provision Server	Port 2	FXS	Yes	Idle	Registering							
Save-Reload Setting	Port 3	FXS	Yes	Idle	Registering							
	Port 4	FXS	Yes	Idle	Registering							
Upgrade Firmware	Port 5	FXS	Yes	Idle	Registering							
Reset to Default	Port 6	FXS	Yes	Idle	Registering							
Network Status	Port 7	FXS	Yes	Idle	Registering							
Version Info.	Port 8	FXS	Yes	Idle	Registering							

Item	Displays the corresponding port number.
Status	Displays the status of the port.
Port Type	Displays the port type (FXS,FXO)of the corresponding port
	number.
Register Proxy	Displays the registration status of the corresponding port
	number. if the port
	Register success it will display "Yes" .

3.3.8 Password

VoIP Gateway	
Network Configuration	
Seneral Configuration	Password
Advanced Configuration	
Management	Current password
Provision Server	New password
Save-Reload Setting	Confirm new password
D Upgrade Firmware	Apply
Reset to Default	
Network Status	
Version Info.	
Port Status	
Password	
Reboot	

Username	Select the type of user name that you would like to configure					
	the password for, you can choose the following:					
	• root					
	● user					
Current password	Specify the current password for the user selected in the drop					
	down list above.					
New password	Specify the new password for the user selected in the drop					
	down list above.					
Confirm new password	Repeat the new password again for confirmation.					

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

3.4 Rebooting the system

Executing this function will reboot the whole system, when configuration changes are made to the device, it needs to be rebooted for the changes to take effect (see figure below).

VoIP Gateway	
Network Configuration General Configuration Advanced Configuration	Reboot It will take some time to reboot. Please reload web page after that.
Management Provision Server	Note: Please remember your network setting before Reboot.
Save-Reload Setting	Reboot
 Upgrade Firmware Reset to Default 	
Network Status	
Version Info.	
Port Status	
Password	
Reboot	

4. Operation

4.1 Peer to Peer mode (FXO to FXS)

In this application, the distance of PABX extension is not limited. You can use the same PABX in two or more branches.

Configuration:

- 1. Side A (FXO): IP address: 10.1.1.2, number is 2000 to 2008
- 2. Side B (FXS): IP address: 10.1.1.3, number is 1000 to 1008

Side A : (SP5058A: IP address 10.1.1.2) General Configuration / SIP Setting

Network Configuration	-									
General Configuration	Proxy Sel									
5 SIP.Setting	-		Contractions of the	10.1.1.3	5076	Ocimain	PROVING ST	And in the local division of the local divis	(coc) P	WI TIL (see
b SIP Advanced Setting	Outbound	coxy/P2P-IP	2	10.1.1.3	5076			120		0
Payload Type Setting	Secondary		-0-		5060	U.	1	60	1	
D Line Setting	. presentation of the second	Outbound proxy			0			150		P
QoS Setting	Secondary	CONTROLING PROMY								
Speed Dial Setting	Represen	itative Number C	onfigura	ition			_		-	
Caller ID Setting		Enable	,	Account	Number		Password		Display Name	
CDR Setting					2008		••••		2008	
Syslog Setting		Forward		ard Number	Ring Type		Serial I	Ling Time	5	itatus
Advanced Configuration	1	Disable 🐱			Serial ring 😽		10	(Sec)	Registering/ 1	
Management	Hunting									
Reboot	Priority	Line Number	1	2	3	4	5	6	7	8
	Linet		2							
	Line2	2001								
	Line3	2002								
	Line#	2003								
	Linds	2004								
	Lines									
	Line7	2006								
	Lines	2007								

Primary proxy/P2P IP	Specify the destination (Side B) IP Address of
(Side AFXO)	Peer to Peer mode, and specify the port# with
	5076.
Call number configuration	
Representative number	Enable the representative line
(Side A FXO)	

Side A : (SP5058A : IP address 10.1.1.2) General Configuration / Line Setting

Network Configuration		-		_							
General Configuration	ALC: NO.	Settin									
SIP Setting		Global Setting									
SIP Advanced Setting	No,4			Time	30						
Payload Type Setting	TAX				⊖ Enable ⊙I	Disable					
Line Setting	tine	Setting)								
And Setting					1.00			Wait		Call Waiting	
Speed Dial Setting			Enable	- Keng	1.00			to Hotline (sec)	Forward		
Caller ID Setting					Accounts	2000		R NOLIMINAL D			
COR Setting	1.000	Line FXO			Number:	2000		0.000			
D Syslog Setting	1 Line				Password:			0			
Advanced Configuration					Display Name:						
Management						2001	_				
Reboot	-				Account: Number:	2001					
	Line 2	FX0			Password:	2001					
					Display Name:						
		_									
					Account:	2002					
	Line	FXO			Number:	2002		0			
					Password:	••••		· · · · · · · · · · · · · · · · · · ·			
				Display Name:	2002						
					Account:	2003					
	Line	540	100	-	Number:	2003					-
	1	FXO			Password:		= -	0			

Line 1~Line 8	Please refer to the figure shown above, Enable
(Side A FXO)	all the line and Disable all the register.
	Specify the relevant data: Account, number,
	password and display name.

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

Side B: (MICRONET SP5008A : IP address 10.1.1.3) General Configuration—SIP Setting

VolP Gateway	Y											
Network Configuration												
General Configuration	Proxy Sel	tting										
SIP Setting	0	100 H 10 H 200 L 10 H 200 L	Enable	IP Addre	sectorized Property Property and the sector sector		discount within Province of Sciences		(sec) r	THE REAL PROPERTY AND IN THE REAL PROPERTY AND INTERPOPERTY AND INTE		
SIP Advanced Setting	- The second sec	oxy/P2P IP		10.1.1.2	5076			120		0		
Payload Type Setting	Outbound	and the second			5060		-	E.c.	1	[
Line Setting	Secondary	Outbound proxy			5060	1		60		0		
0 QoS Setting	Secondary	outpound proxy			1 10							
D Speed Dial Setting	Represen	tative Number O	onfigura	tion								
Caller ID Setting		Enable		ccount	Nu	mber .	Pav	word	Disp	lay Name		
CDR Setting			1008		1008	1008			1008			
Syslog Setting	3.	orward	Forwa	ard Number	Ring	ј Туре	Serul I	ling Time		Status		
Advanced Configuration	0	isable 👻			Serial ring	~	10	(Sec)	1	io/ No		
Management	Hunting											
Reboot	Priority	Line Number	1	2	3	4	5	6	7	8		
	Linet	1000										
	Line2	1001										
	Line3	1002										
	Line4	1003										
	Line5	1004										
	Lineti	1005										
	Line7	1005							2			
	Lines	1007								2		
					Apply	i i				- 10		
rimary proxy/P2	2P IP				Specify the destination (Side A) IP Address of							
Side B)					Peer to Peer mode, and specify the port# wi							
		5076										
all number conf	figuration	า										
epresentative n Side B)	umber				Enable	e the re	prese	ntativ	e lin	9		
ine 1~Line 8					Please	refer to	the f	gure s	show	n above, Er		

(Side B)

all the line and Disable all the register. Specify the relevant data: Account, number,

password and display name.

Side B: (MICRONET SP5008A: IP address 10.1.1.3) General Configuration / Line Setting

Network Configuration			_	_		_					
General Configuration	and the second	Settin									
SIP Setting	and the second s	al Sett			and the second se						
SIP Advanced Setting	Rational States			Time.	30						
Payload Type Setting	FAX				O Enable 💿	Disable					
Line Setting	Line	Settio								-	1
QoS Setting		TYPE	Enab	Reg	1			Wait to Hotline		Call	1
Speed Dial Setting				- new	1			Hotine (sec)		Waiting	
Caller ID Setting					Account:	1000					Т
CDR Setting	1100		200		Number:	1000	ī		Disable		
Syslog Setting		FXS			Password:			0			E
Advanced Configuration					Display Name:	1000					
Management					Account:	1001	-				t
Reboot					Number:	1001		0	Disable		
	Line 2	FXS	1		Password:						E
					Display Name:	1001					
							24				ł
					Account:	1002	-		factor i		
	Line	FXS			Number: Password:	1002		0	Disable		
					Display Name:	1002	=				
		-			oopay name:	1002					
					Account:	1003					
	Line	FXS	2		Number:	1003		10	Disable		E
	1.1	1000	-	-	Password:	••••				-	1

Line 1~Line 8	Please refer to the figure shown above, Enable
(Side B)	all the line and Disable all the register and call
	waiting.
	Specify the relevant data: Account, number,
	password and display name

- 1. Press the "Apply" button (at the bottom) after you finish to save changes.
- 2. Press the "**Reboot**" button to apply the changes.

4.2 Peer to Peer mode (FXS to FXS)

Peer A—MICRONET SP5008A / SP5018A / SP5058A (for example the IP address is: 192.168.23.14)

Peer B—MICRONET SP5008A / SP5018A / SP5058A (for example the IP address is: 192.168.23.58)

Peer A—MICRONET SP5008A / SP5018A / SP5058A (for example the IP address is: 192.168.23.14)

letwork Configuration	-								_	_
Seneral Configuration	Proxy Set	ting	Transle	IP Address	Port			Expire Tim		
SIP Setting	Designation and	oxy/P2P IP	Enable	192.168.23.58	5076	Domain	Tame	120	atest (0
StP Advanced Setting	Outbound			194-100-23-00	5060			120		
Payload Type Setting	Secondary				5060			60		la l
Line Setting	-				0	-	-	ay.		
QoS Setting	(Contraction)	outoening proxy								
Speed Dial Setting	Represen	tative Number C	onfigura	tion						
Caller ID Setting		Enable	4	ccount	Number		Password		Display Name	
CDR Setting		2	1008		1008	008		••••		
Syslog Setting	11	orward	Forward Hundrer		Ring Type		send tion Time		Status	
Advanced Configuration	D	isable 💌			Serial ring	*	10	(Sec)		No/ No
lanagement	Hunting							455	115	
eboot	Priority	Line Number	1	2	3	4	5	6	7	8
	Ines	1090								
	Line2									
	Line3	1002								
	Linet	1003								
	Anes .	1004								
	Limo	1005								
	Line7	1006								-
	Linea	1007							-	

Network Configuration	_	_		_	_	_		_			
General Configuration		Settin									
STP Setting	_										
SIP Advanced Setting	No A				30						
D Dayland Type Setting	FAX				⊖ Enable ⊙	Disable					
Line Setting	tine	Setting									
D QoS Setting			Enable					Wait to		Call Waiting	
D Speed Dial Setting			Enable					Hotine (sec)			
Caller ID Setting					Account:	1000		and the second second			
D CDR Setting	1995				Number:	1000	-	100	Disable 💌		
D Syslog Setting	1	FXS	9		Password:			0			
Advanced Configuration					Display Name:	1000	-				
Management											
Reboot					Account:	1001	_		1		
	Line	FXS			Number:	1001		0	Disable 💌		
			1000		Password:	••••					
					Display Name:	1001					
					Account:	1002					
	Line	Ener FXS V V Number: 1002	101	Disable 💌							
			1	-	Password:	••••				-	-
					Display Name:	1002					
					Account:	1003					
	Line			_	Number:	1003		1 0 1	Disable 💌	_	
	101	FXS	2	2	Password:			0			

Peer B—MICRONET SP5008A / SP5018A / SP5058A (for example the IP address is: 192.168.23.58)

twork Configuration													
meral Configuration	Prox	y Setti	ng				112			_			
SIP Setting	-	-			Enable	IP Address	Port	Domai	n Name	Expire T	ime(sec)	HWETTE	1000
SIP Advanced Setting		ary prox		IP		92.168.23.14	5076			120		0	_
Payload Type Setting					0		5060		-		-		
Line Setting							5060			60		0	
QoS Setting	Seco	odary O	utbour	nd prox		1	0						
Speed Dial Setting	Repr	resenta	itive N	umber	Configurati	on							
Caller ID Setting		CONTRACTOR OF STREET,	nable	04004055	CALL OF BRIDE STREET, SALES	ount						isplay Nam	
CDR Setting			•		2008		2008				200	8	
Syslog Setting		for	rward		Forward	5 Number	Ring	Туре	Sera	l Ring Time		Status	4
Ivanced Configuration		Disa	able 💌				Serial ring	~	10	(Sec)		No/ No	
anagement	Hun	ting	/	-					10		-	-	
boot	Prio	nin I	Line N	umber	1	2	3	4	5	6	7	8	-
	1		20	00									
	10	v2	20	01									
	Lin	103	20	0.2									
	1.0		20	03									
	110	e5	20	04									
	200	<	20	05									/
	Lin	w	20	06									
	1.0			07	-					-	-	2	
olP Gateway							Apply	>					
all Gateway work Configuration heral Configuration	Line S	Setting					Apply	>					
work Configuration	Line S Global	Settin	9				Apply	>					
work Configuration	Line S Global No An		9		30		Apply	<u> </u>					
work Configuration neral Configuration IP Setting	Line 5 Global No An FAX	l Settin swer Fo	9		30 ○ Enable ⊙ 0	Deable	Apply						
work Configuration neral Configuration IP Setting IP Advanced Setting	Line S Global No An	l Settin swer Fo	9		1911	Disable	Apply	5					
work Configuration heral Configuration IP Setting IP Advanced Setting ayload Type Setting	Line 5 Global No An FAX	l Settin swer Fo	9		⊖Enable ⊙t	Deable		5	Wait to jotilioe (sec)	Forw	and	Call Waiting	Des
work Configuration neral Configuration IP Setting IP Advanced Setting avjoad Type Setting ne Setting of Setting peed Dial Setting	Line 5 Global No An FAX	l Setting	g grward 1		⊖Enable ⊙t			5	Walt	Forw	ard		Driv
work Configuration neral Configuration IP Setting IP Advanced Setting avoad Type Setting ne Setting oS Setting peed Dial Setting alier ID Setting DR Setting	Line 5 Global Ho An FAX Line 5	I Settine sawer Fo settine TYPE	g erward Enable	Reg	O Enable ⊙ 0	mber	tho	5	Wait to hotine (sec)	Forw	and	Call	
work Configuration neral Configuration IP Setting IP Advanced Setting advoid Type Setting ne Setting oos Setting pred Dial Setting alier ID Setting DR Setting	Line 5 Global Ho An FAX Line 5	l Setting	g grward 1		O Enable O C	2000		5	Wait botion (sec)		and		
work Configuration neral Configuration IP Setting IP Advanced Setting avoid Type Setting os Setting poed Dial Setting aller ID Setting DR Setting yslog Setting	Line 5 Global Ho An FAX Line 5	I Settine sawer Fo settine TYPE	g erward Enable	Reg	C Enable () () Account: Number: Password:	mber 2000 2000	tho	5	Wait to hotine (sec)		ard	Call	
work Configuration heral Configuration IP Setting IP Advanced Setting avoad Type Setting ine Setting oos Setting pred Dial Setting aller ID Setting	Line 5 Global Ho An FAX Line 5	I Settine sawer Fo settine TYPE	g erward Enable	Reg	C Enable () () Account: Number: Password:	2000 2000 2000 2000	tho	5	Wait to hotine (sec)		ard	Call	1
work Configuration neral Configuration IP Setting IP Advanced Setting advad Type Setting os Setting peed Dial Setting aller ID Setting DR Setting yslog Setting wanced Configuration	Line S Globus No An FAX Line S Une 1	I Setting setting TYPE	9 erward 1	Reg	C Enable C III	2000 2000		5	Wait to lotline (sec)	Disable		Call Waiting	C
work Configuration neral Configuration IP Setting IP Advanced Setting avoid Type Setting os Setting peed Dial Setting aller ID Setting DR Setting yslog Setting wanced Configuration nagement	Line S Globus No An FAX Line S Une 1	I Settine sawer Fo settine TYPE	g erward Enable	Reg	C Enable © D Account: Number: Password: Display Name: Account:	2000 2000 •••• 2000 2001	tho	5	Wait to fotime (sec)		ard	Call Watting	C
work Configuration neral Configuration IP Setting IP Advanced Setting avoid Type Setting os Setting peed Dial Setting aller ID Setting DR Setting yslog Setting wanced Configuration nagement	Line S Globus No An FAX Line S Une 1	I Setting setting TYPE	9 erward 1	Reg	C Enable © D Account: Number: Password: Display Name: Account: Number:	2000 2000 2000 2000 2001 2001 2001 		5	Wait to lotline (sec)	Disable		Call Waiting	C
work Configuration neral Configuration IP Setting IP Advanced Setting avoid Type Setting os Setting peed Dial Setting aller ID Setting DR Setting yslog Setting wanced Configuration nagement	Line S Globus No An FAX Line S Une 1	I Setting setting TYPE	9 erward 1	Reg	C Enable O I Account: Number: Password: Display Name: Account: Number: Password: Display Name:	2000 2000 2000 2000 2001 2001 2001 2001		5	Wait to lotline (sec)	Disable		Call Waiting	C
work Configuration neral Configuration IP Setting IP Advanced Setting avoid Type Setting os Setting peed Dial Setting aller ID Setting DR Setting yslog Setting wanced Configuration nagement	Line S Globus No An FAX Line S Une 1	I Setting setting TYPE	9 erward 1	Reg	C Enable C III Account: Number: Password: Display Name: Account: Number: Password: Display Name: Account:	2000 2000 2000 2000 2001 2001 2001 2001		5	Want totine (sec)	Disable Disable		Call Waiting	C
work Configuration neral Configuration IP Setting IP Advanced Setting avoid Type Setting os Setting peed Dial Setting aller ID Setting DR Setting yslog Setting wanced Configuration nagement	Line 5 Global Jio An FAX Line 5 Line 5	I Setting setting TYPE	9 erward 1	Reg	C Enable C III Number: Password: Display Name: Account: Number: Password: Display Name: Account: Number:	2000 2000 2000 2000 2001 2001 2001 2001		5	Want totine (sec)	Disable		Call Waiting	
work Configuration neral Configuration IP Setting IP Advanced Setting avoid Type Setting os Setting peed Dial Setting aller ID Setting DR Setting yslog Setting wanced Configuration nagement	Line 5 Global Jio An FAX Line 5 Line 5	I Setting server for retting TYPE FXS FXS	9 9 erward 1 Enable	Reg	C Enable C In	2000 2000 2000 2001 2001 2001 2001 2001		5	Wait to totline (sec)	Disable Disable		v Call Walting	
work Configuration neral Configuration IP Setting IP Advanced Setting avoid Type Setting os Setting peed Dial Setting aller ID Setting DR Setting yslog Setting wanced Configuration nagement	Line 5 Global Jio An FAX Line 5 Line 5	I Setting server for retting TYPE FXS FXS	9 9 erward 1 Enable	Reg	C Enable C In	2000 2000 2000 2000 2001 2001 2001 2001		5	Wait to totline (sec)	Disable Disable		v Call Walting	, 04

Network Configuration	-	_	_	_							
General Configuration		Settin									
b SIP Setting											
SIP Advanced Setting	No A			Time	30						
Payload Type Setting	FAX				⊖ Enable ⊙	Disable					
Line Setting	Line	Settin	<u> </u>	_	1						
0 QoS Setting		TYPE	Enable	Reg	1.00			Wait. to	Forward	Call Waiting	DND
Speed Dial Setting			Contraction of the	recos	Bry.			(sec)			Contract of
Caller ID Setting					Account:	2000					-
CDR Setting	1.000				Number:	2000	=	-	Disable 💌		
Syslog Setting	Line 1	FXS	2		Password:			0			
Advanced Configuration					Display Name:	2000	-				
Management					Account:	2001					
Reboot					Number:	2001	-		Thursday 1		
	Line 2	FXS	9		Password:			0	Disable	1	
					Display Name:	11111	-				
					wapay name.	And and a					
					Account:	2002					
	Line	FXS			Number:	2002		0	Disable 💌		
				-	Password:	••••				-	-
					Display Name:	2002	_				
					Account:	2003					
	Line	FXS	673	-	Number:	2003			Disable 💌	Ø	-
	Line 4	172			Password:			0			

Primary proxy/P2P IP	Specify the destination IP Address of Peer to
(Peer A / Peer B)	Peer mode, and specify the port# with 5076.
	In this application, we define the Peer to Peer
	mode in 2 groups. If you want to make call
	to others IP addresses, please refer to the
	paragraph 3.3.7 Speed dial setting.
Call number configuration	
Representative number	Enable the representative line
(Peer A / Peer B)	
Line 1~Line 8	Please refer to the figure shown above, Enable
(Peer A / Peer B)	all the line and Disable all the register of two
	sides.
	Specify the relevant data: Account, number,

- 3. Press the "Apply" button (at the bottom) after you finish to save changes.
- 4. Press the "**Reboot**" button to apply the changes.

5. Specification

Model	SP5008A
Standard	SIPv2 (RFC 3261): Primary and Secondary Proxy, Primary and Secondary
	Outbound Proxy
POTS Interface	8 FXS
Ethernet Port	• 1 x RJ-45 WAN port of 10/100M
	• 4 x RJ-45 LAN ports of 10/100M
Voice	• Codec: G.711a/mu-law, G.723.1 (6.3K), G.729, G.729.A
	VAD, CNG, and Silence Suppression
	Echo Cancellation (G.165 / G.168)
	Adaptive Jitter Buffer
	Packet Loss Compensation
	Adjustable volume level
DTMF	In-band, SIP Info, RFC2833
Telephony	Caller ID Detection: FSK, DTMF, ETSI (before ringing, between ringing)
	Call hold, Call transfer, Call waiting, Call forward (Unconditional, No
	answer, Busy, No Answer+Busy)
	Music on Hold
	Hotline and Waiting Time to Hotline
	Speed Dial and Peer-to-Peer Call
	Anonymous Call
	DND (Do Not Disturb)
	Dial Plan and Digit Manipulation
	 Tone Generation/Detection: Ringing Tone, Ring Back Tone, Dial Tone,
	Programmable Tone
	CDR (Call Detail Record)
	MWI (Message Waiting Indication)
	FAX over IP: G.711 pass-through, T.38 Fax relay
PBX Features	Representative number setting
	Support SIP Trunk
	 Extension calling among FXS ports
	Direct line (DID) to extension
	 Max. 9 registrars (SIP trunk and 8 direct lines)
	Operator (Serial ring on extension) for attendant
Security	 HTTP 1.1 basic/digest authentication for WEB access
	MD5 for SIP authentication (RFC 2069/2617)

	Password protected for Admin access authority
Networking	PPPoE Client, DHCP Client / Server, NAT, SNTP
	QoS: DiffServ / ToS
Management	User interface: HTTP and Telnet
	 Firmware upgrade via FTP/TFTP/HTTP/Telnet
	Auto Provisioning
Environment	Operating Temperature: 0 – 45 degree C
	 Storage Temperature: 0 – 55 degree C
	Operating Humidity: 10 to 85% (non-condensing)
	Storage Humidity: 10 to 95% (non-condensing)
Power Supply	DC 12V, 3A
Emission	CE
	FCC Part 15, Class B

Model	SP5018A
Standards	SIPv2 (RFC 3261): Primary and Secondary Proxy, Primary and
	Secondary Outbound Proxy
Interface	• 1 x RJ-45 WAN port of 10/100M
	• 4 x RJ-45 LAN ports of 10/100M
	 4 x RJ-11 FXS ports for connecting with phone set and fax machine
	4 x RJ-11 FXO ports for connecting with PSTN line or PABX's extension
Voice Processing	 Codec: G.711a/mu-law, G.723.1 (6.3K), G.729, G.729.A
	VAD, CNG, and Silence Suppression
	Echo Cancellation (G.165 / G.168)
	Adaptive Jitter Buffer
	Packet Loss Compensation
	Adjustable volume level
	DTMF relay: In-band, RFC 2833, SIP Info
Call Features	Caller ID Detection: FSK, DTMF, ETSI (before ringing, between ringing)
	Call hold
	Call transfer (blind & consultant)
	 Call forward (Unconditional, No answer, Busy)
	MWI (Message Waiting Indication)
	• FAX over IP: G.711 pass-through, T.38 Fax relay
	 PSTN Lifeline: PSTN bypass if network or system fails
	Detection of disconnect tone, polarity reversal, and loop current drop (zero
	voltage) on FXO ports

Security	HTTP 1.1 basic/digest authentication for WEB access
	MD5 for SIP authentication (RFC 2069/2617)
	Password protected for Admin access authority
Networking	PPPoE Client, DHCP Client / Server, NAT, SNTP
	• QoS: DiffServ / ToS
Management	User interface: HTTP and Telnet
	Firmware upgrade via FTP/TFTP/HTTP/Telnet
	Auto Provisioning
Power Supply	• DC 12V, 3A
Environment	Operating Temperature: 0 – 45 degree C
	 Storage Temperature: 0 – 55 degree C
	Operating Humidity: 10 to 85% (non-condensing)
	Storage Humidity: 10 to 95% (non-condensing)
Dimension	35 × 242 × 160 (mm)
Emission	• CE
	FCC Part 15, Class B

Model	SP5058A
Standards	SIPv2 (RFC 3261): Primary and Secondary Proxy, Primary and Secondary
	Outbound Proxy
Interface	• 1 x RJ-45 WAN port of 10/100M
	• 4 x RJ-45 LAN ports of 10/100M
	8 x RJ-11 FXO ports for connecting with PSTN line or PABX's extension
Voice Processing	 Codec: G.711a/mu-law, G.723.1 (6.3K), G.729, G.729.A
	VAD, CNG, and Silence Suppression
	Echo Cancellation (G.165 / G.168)
	Adaptive Jitter Buffer
	Packet Loss Compensation
	DTMF relay: In-band, RFC 2833, SIP Info
Call Features	Caller ID Detection: FSK, DTMF, ETSI (before ringing, between ringing)
	Call hold
	Call transfer (blind & consultant)
	 Call forward (Unconditional, No answer, Busy)
	FAX over IP: G.711 pass-through, T.38 Fax relay
	Detection of disconnect tone, polarity reversal, and loop current drop (zero
	voltage) on FXO ports
Security	HTTP 1.1 basic/digest authentication for WEB access

	MD5 for SIP authentication (RFC 2069/2617)
	Password protected for Admin access authority
Networking	PPPoE Client, DHCP Client / Server, NAT, SNTP
	QoS: DiffServ / ToS
Management	User interface: HTTP and Telnet
	Firmware upgrade via FTP/TFTP/HTTP/Telnet
	Auto Provisioning
Power Supply	• DC 12V, 3A
Environment	 Operating Temperature: 0 – 45 degree C
	 Storage Temperature: 0 – 55 degree C
	Operating Humidity: 10 to 85% (non-condensing)
	Storage Humidity: 10 to 95% (non-condensing)
Dimension	35 × 242 × 160 (mm)
Emission	• CE
	FCC Part 15, Class B